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# Mendefra Kidanemihret

This lowland site is situated in a region regularly hit by drought and famine. The woody vegetation consists in an open *Acacia*-dominated woodland with much acacia regeneration following the crash in herbivory caused by the 1980s drought. The associated famine resulted in mass death and the graves, each planted with an *Euphorbia tirucalli*, have now turned into a substantial new woodland.



Name: **Mendefra Kidanemihret**

Status: church

Site Code: WU02

Floristic Region: WU

Region: 3 (North Wello)

Altitude: 1490 m

Latitude: 12° 12' N

Longitude: 39° 40' E

Woodland/forest:

Status: relict/new

Size: 1 ha

Dominant species:

canopy: *Acacia etbaica*, *Balanites*

*aegyptica*, *Euphorbia tirucalli*

shrub/ground: *Cynoglossum coerul*,

*Opuntia ficus-indica*

No of woody species: 21

No of species with less than 5 individuals: 1

Threats: invasive species, grazing,

Photograph: The church is situated on gently rising hill (upper centre) in the middle of the plain. In the foreground and on both sides of the church are locally typical agroforestry system found in villages. Hedges are chiefly *Euphorbia tirucalli*.

This lowland site near the town of Kobo is located on a low-lying and flatish hill in the middle of a large plain. The woodland is extremely open and typically it is constituted of scattered trees, chiefly *Acacia etbaica*, with stands of varying sizes of *Opuntia ficus-indica*. The only closed stand of trees is the 1980s graveyard established as a consequence of the famine and associated massive death toll. Each grave was planted with at least one *Euphorbia tirucalli* and this area now forms a monotypic stand roughly the area of a football pitch. Some of these euphorbias are even planted before a person is buried, this is carried out in order to reserve a space in the graveyard.

The other impact of that severe drought has been the widespread regeneration of *Acacia etbaica*, probably the result of seedling release from herbivory following the death of most, if not all, livestock.

The surrounding countryside is pretty treeless apart from the intricate agroforestry system existing around settlements, usually at the base of small hills. The hedges (to height of 4 m) consist chiefly of the evergreen *Euphorbia tirucalli*, this small tree being easily vegetatively propagated.

### History

The main recurrent history of this site is regular extreme drought inducing massive starvation and death of most livestock. The impact on human populations is clearly indicated by the masses of graves and associated planted trees resulting from the death of hundreds of people during the 1980s famine. Even without a major drought the local

population is regularly confronted with severe shortages of water.

### Conservation status

Its main value is as a potentially well-stocked closed canopy woodland in a landscape devoid of native woodland.



The woodland around the church is very open and contains mainly *Acacia etbaica* with much planted *Opuntia ficus-indica*, this species is slowly spreading. Note the extensive regeneration of *Acacia*

*etbaica* in the foreground which is thought to have occurred as a consequence of the 1980s drought and resulting decrease in herbivory.

### Threats

Overgrazing and excessive spread of *Opuntia ficus-indica* are the two current potential threats.

### Management

As one, and maybe two, cohorts of *Acacia etbaica* has successfully become established, the area, if not confronted with excessive herbivory, will revert to an *Acacia* woodland. However, from a conservation point of view it would be essential to either promote the regeneration of other native species or initiate a planting programme.

*Opuntia ficus-indica* appears to be an essential plant to the local population, they extensively feed on the fruit when available and the pads are used as cattle fodder. Therefore, what is required is a management system which contains the spread of the species rather than removing it from the churchyard.